PICKUP BOX REMOVAL / ALTERATIONS INDEX

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PICKUP BOX REMOVAL / ALTERATIONS INDEX

PART I

Introduction

The following information is presented in three parts for vehicle alterers who intend to remove pickup boxes from certain Super Duty F-Series pickup trucks, and install aftermarket second unit bodies on these vehicles.

Part I details those Super Duty F-Series pickup models that may be altered by removal of the pickup box and installation of aftermarket second unit bodies and indicates where specific questions should be directed.

Part II provides information concerning the obligations and responsibilities of vehicle alterers with respect to United States and Canada Motor Vehicle Safety Standards (F/CMVSS).

Part III provides information for vehicle alterers with respect to United States, California, and Canada exhaust emissions, evaporative emissions and RFI requirements, and California requirements with regard to fuel vapor Recovery.

Vehicle alterers who intend to modify vehicles, as described above, may use the information and conditions provided herein to assist them in determining whether modified vehicles comply with applicable regulatory requirements. Alternatively, the vehicle alterer may desire to employ other limits or conditions than those provided herein.

NOTE: It is the responsibility of the vehicle alterer to assure compliance and certification of the altered vehicle to the applicable safety and/or emissions, including Noise and RFI requirements.

Specific questions concerning compliance and/or certification to safety standards and emissions and fuel economy regulations should be directed to the vehicle alterer's legal counsel or the United States National Highway Traffic Safety Administration (FMVSS and Federal Fuel Economy Standards and requirements), the Canada Ministry of Transport (CMVSS, emissions, and noise regulations), the Canada Department of Communications (Canadian RFI regulations), the United States Environmental Protection Agency (EPA) (United States emission requirements) or the California Air Resources Board (California emissions and fuel vapor recovery requirements), and the vehicle noise emission control authorities, if any, in the state and locality in which the vehicle is sold.

If you have technical, product-related questions concerning some aspect of the vehicle alteration, a representative of Ford Motor Company will be happy to talk with you. Please contact your regional sales office or email the Ford Truck Body Builders Advisory Service via the web at www.fleet.ford.com/truckbbas under the "Contact Us" tab.

Models Available for Pickup Box Removal

The Super Duty F-Series may be altered by removing the pickup box and installing aftermarket Second Unit Bodies (SUBs). Limitations on the Second Unit Bodies (SUBs) that may be installed, as well as other vehicle conditions, are specified in Table A and in the Safety / Emissions Section.

PART II

Information Concerning United States and Canada Safety Standards

The vehicle alterer is responsible for certifying the altered vehicle pursuant to Title 49 of the Code of Federal Regulations Sections 567.7 and 568.8 in the United States, or pursuant to Section 9 of the Canadian Motor Vehicles Safety Regulations in Canada. As outlined in these requirements, the vehicle alterer must ascertain which F/CMVSS are affected by the alteration, and subsequently provide certification that the altered vehicle conforms to all affected safety standards. In the information that follows, Ford has endeavored to provide sufficient instructions and guidelines to the vehicle alterer for certifying that the vehicle conforms to all F/CMVSS affected by the vehicle alteration. Information pertaining to Certification Labeling Requirements for the altered vehicle is outlined at the end of Part II.

Federal and Canadian Motor Vehicle Safety Standards Compliance

Conformity to the following FMVSS (FMVSS) and Canadian Motor Vehicle Safety Standards (CMVSS) are affected by the removal of the pickup box and rear bumper and installation of an aftermarket second unit body:

F/CMVSS No. 105(1) – Hydraulic Brakes

F/CMVSS No. 108 – Lighting Equipment

F/CMVSS No. 111 – Rear view Mirrors

F/CMVSS No. 126(2) – Electronic Stability Control

F/CMVSS No. 204(3) – Steering Control Rearward Displacement

F/CMVSS No. 208 – Occupant Crash Protection

F/CMVSS No. 212(4) – Windshield Mounting

F/CMVSS No. 214(4) – Side Impact Protection

F/CMVSS No. 219(4) – Windshield Zone Intrusion

F/CMVSS No. 301(4) – Fuel System Integrity

Ford Motor Company represents that, in the case of a Super Duty F-Series pickup truck listed in Table A, this vehicle, as altered, will conform to the requirements of the previously listed safety standards provided the vehicle is altered only by the removal of the pickup box (including optional equipment attached to the pickup box) and rear bumper (if so equipped), and the installation of an aftermarket Second Unit Body (SUB) in accordance with the following conditions:

1. The following lighting components must be designed and installed on the altered vehicle in accordance with the requirements of F/CMVSS No. 108, Lamps, Reflective Devices, and Associated Equipment:
   - Tail Lamps*
   - Stop Lamps*
   - License Plate Lamps*
   - Back-Up Lamps*
   - Rear Turn Signal Lamps*
   - Rear Side Marker Lamps*
   - Rear Side Reflex Reflectors*
   - Reflectors*
   - Center High Mounted Stop
   - Lamp (if second unit body blocks view of the CHMSL on the back of the cab another CHMSL must be added)
   - Rear Side Marker Lamps
   - Front and Rear Identification Lamps (for vehicles over 80 inches in width)
   - Front and Rear Clearance Lamps (for vehicles over 80 inches in width)

   The items of lighting equipment (including wiring and power supply) on the cab of the pickup truck must not be removed, modified, replaced, or altered. Further, the second unit body installed by the vehicle alterer must not impair the visibility and conformity to the photometric requirements of the lamps and reflective devices installed on the cab of the pickup truck.
2. The weight (in pounds) of the Second Unit Body (SUB) installed must be within the range specified in Table A, corresponding to the particular pickup truck model, and not greater than the weight (in pounds) calculated using the following formula:

   SUB WEIGHT LIMIT = Unloaded Vehicle Weight (UVW) – Original Equipment Manufacturer (OEM) Curb Weight + Pickup Box + Options Removed.

Super Duty F-Series

- Step Bumper – 74 lb.
- Pickup Box – see Table A
- Spare Wheel and Tire – see Table B

NOTES:

(1) Standard 105 applies to vehicles with a GVWR over 3500 Kg (7716 lb).

(2) Limit CGv as specified in the *Incomplete Vehicle Manual* (IVM).

(3) For vehicles with a GVWR of 10,000 lb or less and an unloaded vehicle weight of 5500 lb or less.

(4) Applicable to vehicles with a GVWR of 10,000 lb or less.

* These lamps and reflectors are available from Ford in the form of rear lamp assemblies and are the same as those installed on Ford chassis cab models.

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PICKUP BOX REMOVAL / ALTERATIONS DESIGN RECOMMENDATIONS (Cont'd)

F250/350 PICKUPS WITH GVWR RATINGS OF 10,000 LBS OR LESS PICKUP BOX REMOVAL REQUIREMENTS FOR F/CMVSS 301:

Ref: SVE Bulletin Q-183 (F/CMVSS 301 Fuel System Integrity), SVE Bulletin Q-264 (Loss of MS-CAN Communication and Other Various Issues Related to Pickup Box Removal) and SVE Bulletin Q-265 (Box Removal with BLIS)

Vehicles will comply if guidelines and recommendations are followed as specified in the Truck Body Builders Layout Book. Information is also available in the applicable Super Duty F-Series *Incomplete Vehicle Manual* Standard 301 pass-thru compliance guidelines relative to the fuel system, chassis and trailer hitch receiver. The IVM is available at www.fleet.ford.com/truckbbas under the "Publications" tab.

The revised additional requirements are summarized as follows:

General Upfit Requirements:

- Except for a service body upfit with a rear bumper, there must not be any components that tie a second unit body (SUB) to the frame rearward of rear spring's rear hanger/shackle brackets. Note that components for lateral support may be bolted or welded to either the chassis (only) or the second unit body (only).

- Pickup Box Delete vehicles (Sales Code 66D) incorporate an outboard LH frame-mounted bracket (Ref: Figure A) required as part of pickup truck Standard 301 compliance (two brackets in some configurations). Ford recommends that any existing bracket(s) not be removed for SUB installation, however, if there is an interference with a service body upfit it may be removed and still maintain Standard 301 compliance. All other SUB upfits, including platform & stake bodies, require this bracket remain attached as installed by Ford Motor Company.

- Except for a service body upfit with a rear bumper, there must not be any components that tie a second unit body (SUB) to the frame rearward of rear spring's rear hanger/shackle brackets. Note that components for lateral support may be bolted or welded to either the chassis (only) or the second unit body (only).

- A service body upfit with a rear bumper attached via a bracket that ties the second unit body (SUB) to the frame must not exceed 6.35mm [0.25 in,] gauge thickness.

Additional Requirements for Platform/Stake Body Upfits:

- For platform/stake body upfits only, second unit body (SUB) longitudinal rail supports must not exceed 6.35mm [0.25 in.] gauge thickness.

- To obtain pass-thru compliance to Standard 301 for a platform/stake body upfit, if your vehicle is not equipped from the factory with a 16K rated frame-mounted trailer hitch receiver (i.e., equipped with a 12.5K rated hitch), the hitch receiver must be removed and replaced with a 16K hitch receiver replaced with a 16K trailer hitch receiver (Ford Engineering Part Number BC34-19D521-B, Ford Service Part Number BC3Z-17D826-B). The trailer tow capability of the vehicles remain unchanged as specified in the vehicle owner's guide and the applicable Ford Motor Company RV and Trailer Towing Guide.

Any questions should be directed to the Body Builder Advisory Service at www.fleet.ford.com/truckbbas under the "Contact Us" tab.

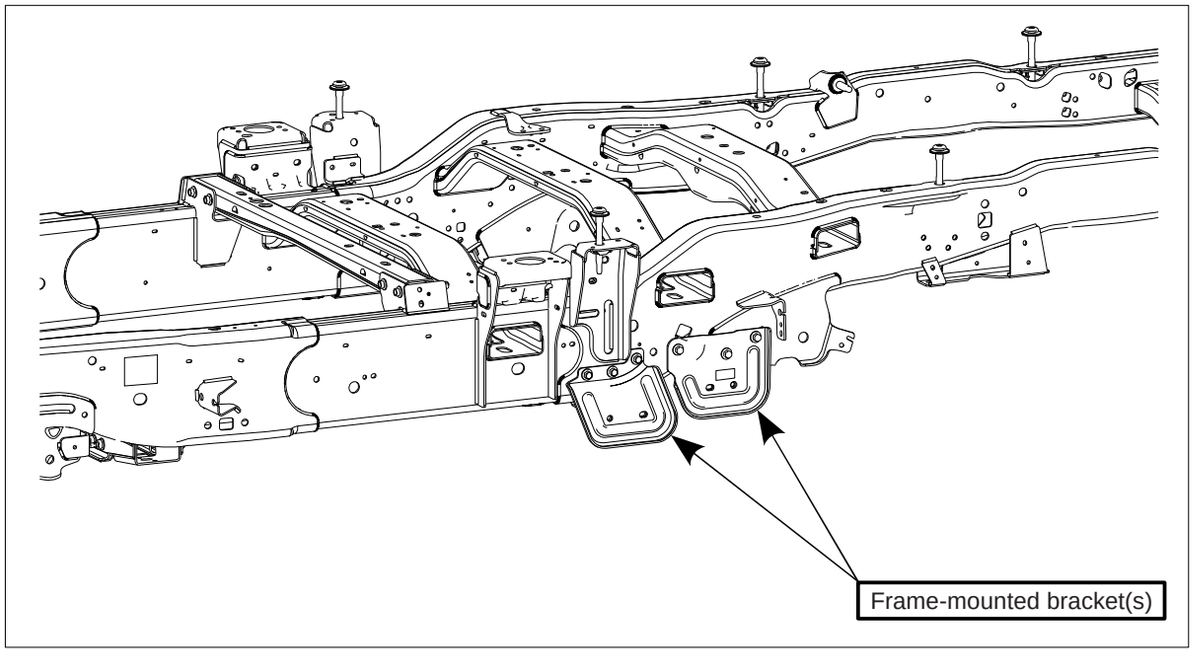

FIGURE A – LH FRAME-MOUNTED BRACKET(S) REQUIRED ON NON-SERVICE APPLICATION SECOND UNIT BODY (SUB) INSTALLATIONS (E.G., STAKE, PLATFORM, ETC.) (PICKUP BOX DELETE ONLY)

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PICKUP BOX REMOVAL / ALTERATIONS DESIGN RECOMMENDATIONS (Cont'd)

PART II (Cont'd)

Example

A vehicle alterer wants to remove the pickup box and rear step bumper from a Super Duty F-250 Regular Cab (4x4), 142-inch WB model with a 6.2L engine, automatic transmission, and air conditioning having a curb weight of 6340 lb and install a 600-pound Second Unit Body (SUB).

The SUB weight must not exceed the SUB WEIGHT LIMIT calculated below:

SUB WEIGHT LIMIT = Maximum Complete Unloaded Vehicle Weight (UVW) (Table A) minus the unloaded vehicle weight as delivered (OEM) curb weight plus pickup box weight removed plus weight of removed options.

= 7819 – 6340 + 380 + 74
= 1933 lb

The 600 lb SUB is less than 1933 lb and, accordingly, may appropriately be installed as planned.

If the SUB is heavier than the maximum limit, the vehicle alterer must either select a lighter weight SUB, reduce the OEM accessory weights for the vehicle, or both.

1. OEM Curb Weight includes Base Vehicle Weight (with full fuel), engine and transmission weight, and all OEM accessory weights ordered or installed (Refer to the appropriate *Truck Source Book* for weight data or email the Ford Truck Body Builders Advisory Service via the web at www.fleet.ford.com/truckbbas under the "Contact Us" tab.).

2. Options removed include step bumpers or similar OEM options permanently removed from the vehicle.

3. The center of gravity height and overall height of the second unit body installed by the alterer must not exceed the values specified in Table A corresponding to the particular pickup model. Center of gravity height and overall height of the second unit body are measured from the top surface of the frame at the rear of the cab.

4. The altered vehicle's Unloaded Vehicle Weight (see Definitions section) must not exceed the values designated in Table A corresponding to the pickup truck's model and non-California engine-transmission combination.

5. These instructions must be followed in the vehicle alteration:
   - The following components, as installed by Ford Motor Company, are not to be removed, relocated, altered, nor modified in any way:
     - Steering column, steering shaft, steering wheel, and related structural components and attachment hardware
     - Windshield and windshield mounting system
     - Cab and front end structural components, including the roof, pillars, cowl, cowl reinforcements, hood, doors, fenders, hood restrictors and apron reinforcements, and frame and frame reinforcements
     - Radio antenna
     - Doors and hood mounting, hinging, and latching systems
     - Hood and fender ornamentation
     - Fuel tank and attachment hardware, including sending unit and vapor valve, fuel tank shield, and in-tank electric fuel pump (for gasoline engine only)
     - Outboard LH frame-mounted bracket (Ref: Figure A) required as part of pickup truck Standard 301 compliance. Ford recommends that this bracket not be removed for SUB installation, however, if there is an interference with a service body upfit it may be removed and still maintain Standard 301 compliance. All other SUB upfits, including platform & stake bodies, require this bracket remain attached as installed by Ford Motor Company.
     - Fuel lines, routing, and attachments, excluding fuel filler cap, filler pipe, filler hose(s), and filler system attachment hardware, which must be removed and replaced
     - Vapor line(s) and carbon canister(s)
     - Fuel pump
     - Fuel filter and attachment
     - Air cleaner assembly
     - Safety belts
     - Front seat head restraints
     - Electrical grounds on all components (must be retained)
     - The Powertrain Control Module (PCM)
     - Catalyst and Exhaust System
     - Trailer hitch receiver
     - CGv must adhere to C/FMVSS Standard 126 Electronic Stability Control System limitations
   - Any alteration or modification made to the vehicle, as manufactured by Ford Motor Company, and any components or structure installed by the vehicle alterer must not result in steering column rearward displacement of more than 5 inches (as defined in F/CMVSS No. 204(1)); no modification to the Hydraulic Brake System that would affect compliance to F/CMVSS No. 105; an increase in injury potential for front outboard seating positions (as defined in F/CMVSS No. 208); any additional loss of windshield retention (as defined in F/CMVSS No. 212(2)); any change in the performance requirements of F/CMVSS 214(2); any penetration of the inner surface of the windshield or intrusion into the protected zone (as defined in F/CMVSS No. 219(2)); or loss of fuel system integrity (as defined in F/CMVSS No. 301(2)); when the vehicle is tested in any manner specified by applicable provisions of F/CMVSS No. 105(3), 204(1), 208, 212(2), 214(2), 219(2), and 301(2), respectively.

NOTE: Federal Motor Vehicle Safety Standard (FMVSS) and Canadian Motor Vehicle Safety Standard (CMVSS) No. 204 are not applicable to a vehicle with an unloaded vehicle weight greater than 2495 kg [5500 lb]. F/CMVSS No. 208 injury criteria are applicable only to vehicles with a GVWR of 3856 kg [8500 lb] or less and an unloaded vehicle weight of 2495 kg [5500 lb] or less. Conformity to Federal Motor Vehicle Safety Standard (FMVSS) and Canadian Motor Vehicle Safety Standard (CMVSS) No. 212 and 219 for vehicles having a gross vehicle weight rating (as defined in 49 CFR, Part 571.3) no greater than 4536 kg [10,000 lb], is established for representative vehicles at a vehicle weight provided by Sections S6.1(b) and S7.7(b) of FMVSS No. 212 and 219, respectively, and provided by Sections 5.1 and 8 of CMVSS No. 212 and 219, respectively.

   - The second unit body installed shall be mounted securely and so designed that when the altered vehicle is impacted in any manner specified by applicable provisions of F/CMVSS No. 212(2) and 219(2), second unit body deformation or movement relative to the frame does not result in any separation or loss of body attachment to the frame.
   - The second unit body installed and the required fuel system components (identified below) shall be located and mounted as follows:
     - The second unit body shall be mounted securely and is so designed that when the altered vehicle is tested in any manner specified by applicable provisions of F/CMVSS No. 301(2):
       (a) Second unit body components shall not contact any fuel system component (other than at the points where the fuel system is permanently attached to the second unit body) and
       (b) Second unit body deformation or movement relative to the frame shall not cause any fuel system component to be penetrated, disconnected, or otherwise damaged.
     - The rear end of the second unit body (excluding the rear bumper) installed shall not extend beyond (overhang) the rear edge of the vehicle frame or frame extension. Any extension of the vehicle frame must be constructed and attached so as to perform as a continuation of the vehicle frame when the altered vehicle is tested in any manner specified by applicable provisions of F/CMVSS No. 301(2).
     - See the Design Recommendations, Second Unit Body (SUB) attachment section of this book for additional information.
     - The fuel filler cap, filler pipe, filler hose(s), and filler system attachment hardware for vehicles with diesel engines and for vehicles with gas engines shall be installed, as shown in the Super Duty F-Series section and shall be securely retained to remain intact when the vehicle is tested in any manner specified by applicable provisions of F/CMVSS No. 301(2).

NOTES:

(1) For vehicles with a GVWR of 4536 kg [10,000 lb] or less and an unloaded vehicle weight of 2495 kg [5500 lb] or less.
(2) Applicable to vehicles with a GVWR of 4536 kg [10,000 lb] or less.
(3) Standard 105 applies to vehicles with a GVWR over 3500 kg [7716 lb].

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PART II (Cont'd)

- The front end of the second unit body installed shall be located at least three inches rearward of the rearmost point of the cab on Super Duty F-Series.
- The vehicle, as produced by Ford Motor Company, meets the Center High Mounted Stop Lamp (CHMSL) requirements of Standard 108, Lamps, Reflective Devices, and Associated Equipment. Compliance to these criteria may be affected by the installation of a Second Unit Body (SUB), if the SUB blocks the view of the CHMSL mounted on the back of the cab. When this happens, the subsequent manufacturer must install a CHMSL on the SUB that meets FMVSS 108. An electrical feed for installation of a CHMSL on the SUB is provided and is located inside the rearmost crossmember near the end of the left frame rail on the Super Duty F-Series models.
- The vehicle, as produced by Ford, meets F/CMVSS No. 111, Rear Visibilty. Compliance to F/CMVSS No. 111 may be affected, however, by removal of the pickup box and installation of a Second Unit Body (SUB), due to removal of any existing rearview image camera device.
- The vehicle, as produced by Ford, meets F/CMVSS No. 111. Compliance to F/CMVSS No. 111 may be affected, however, by removal of the pickup box and installation of a Second Unit Body (SUB), even though the mirror system has not been altered. A discussion of compliance, with respect to each mirror type, follows:
  - Sail-Mounted Type Outside Mirror on Super Duty F-Series Pickup. Provided the mirrors, driver's seat, and cab are not altered, the mirror system will continue to meet Standard No. 111 if the overall width of the Second Unit Body (SUB) is no wider than the pickup box, and if the view of the roadway behind the vehicle through the inside mirror is not totally blocked off. If the SUB blocks the view through the inside mirror, a flat glass mirror is required on the passenger's side in place of the convex mirror on vehicles to be sold in the United States. Vehicles for sale in Canada may be equipped with the convex mirror on the passenger's side when the SUB blocks the view through the inside mirror. If the SUB is wider than the pickup box, both the driver's side and passenger's side mirrors may have to be replaced with mirrors providing a wider view to the rear.
  - Trailer Tow Mirrors on Super Duty F-Series. These mirrors will continue to meet Standard No. 111, provided the mirrors, the driver's seat, and the cab are not altered.
- If the front bumper and bumper mounting system are removed temporarily, the front bumper and bumper mounting system must be reinstalled in accordance with the instructions provided in the Ford Truck Service Manual. If the front bumper and bumper mounting system are replaced, the replacement front bumper and bumper mounting system must not result in: steering column rearward displacement of more than 5 inches (as defined in F/CMVSS No. 204(1)); any increases in injury criteria (as defined in F/CMVSS No. 208; any additional loss of windshield retention (as defined in F/CMVSS No. 212(2)); any penetration of the inner surface of the windshield or intrusion into the protected zone (as defined in F/CMVSS No.219(2)); or, loss of fuel system integrity (as defined in F/CMVSS No. 301(2)), when the vehicle is impacted in any manner specified by applicable provisions of those standards.

NOTE: The second unit body added by the vehicle alterer may have to conform to other safety standards as well. For example, any glazing used in the second unit body must conform to F/CMVSS No. 205, Glazing Materials. Additionally, if the second unit body is equipped with any passenger seating positions, the following safety standards may be applicable as well:

F/CMVSS No. 111	— Rear Visibility
F/CMVSS No. 206	— Door Locks and Retention
F/CMVSS No. 207	— Seating Systems
F/CMVSS No. 208	— Occupant Crash Protection
F/CMVSS No. 209	— Seat Belt Assemblies
F/CMVSS No. 210	— Seat Belt Anchorages
F/CMVSS No. 214(2)	— Side Impact Protection
F/CMVSS No. 302	— Flammability of Interior Materials

With respect to the second unit body installed and the above-mentioned safety standards, it is the responsibility of the vehicle alterer to assure conformity with all applicable requirements. It is the responsibility of the vehicle alterer to determine which other safety standards, if any, their vehicles must comply with.

NOTE: See statements for F/CMVSS No. 105, Hydraulic Brake implications of modifications/alterations to completed vehicles, including pickup box removal vehicles in the Safety/Emission section.

Certification Labeling Requirements

For altered vehicles in the United States, the vehicle alterer is required to affix an additional label containing the information shown in the Safety / Emissions section.

NOTE: The safety standard certification label, which is affixed to the driver's door latch pillar of the pickup truck, by Ford Motor Company must not be removed. For altered vehicles in Canada, the vehicle alterer is required to affix a label containing the information shown in the Safety / Emissions section.

NOTE: A vehicle alterer may be a manufacturer according to the definition of manufacturer contained in the Canadian Motor Vehicle Safety Act.

PART III

Information concerning United States and Canada Exhaust Emissions, Evaporative Emissions, RFI and Noise, and California Fuel Vapor Recovery Requirements. Refer also to pages within the Safety / Emission section.

NOTE: The information herein is provided as guidance only; it is the responsibility of the vehicle alterer to assure compliance of the altered vehicle with the applicable emission requirements.

A copy of the appropriate Ford Truck Owner's Manual and Warranty Guide is installed in the altered pickup truck prior to sale to the ultimate purchaser in order to provide emissions system information and maintenance schedules.

NOTE: Whether Ford Motor Company or the alterer is responsible for emission warranty claims depends on, among other things, whether the vehicle failed to comply with applicable warranty provisions because of modifications made by the alterer or because of the original design and manufacture of the vehicle. Questions concerning requirements and policies, with respect to alterers of completed vehicles, should be directed to body builder's legal counsel, the Environmental Protection Agency, or the California Air Resources Board.

A. Exhaust and Evaporative Emission Requirements

All complete and some incomplete heavy-duty vehicles up to 14,000 lbs GVWR are emission certified to the chassis certification provisions of 40 CFR, Part 86, Subpart S, and the requirements & restrictions of Subpart S apply. All heavy-duty engines (in some incomplete vehicles having a GVWR of 9900 to 14,000 lb GVWR and all vehicles over 14,000 lb GVWR for the United States and Canada) have been certified to the applicable U.S. Federal or Canadian exhaust or California exhaust and evaporative emissions requirements for heavy-duty engines.

Super Duty F-Series pickup truck models listed in Table A, if altered by removal of the pickup box (including items attached to the pickup box), rear bumper (if so equipped), and installation of a second unit body, *may* not require re-certification to applicable Federal, California, or Canadian emissions requirements if the following conditions are satisfied:

1. None of the emission control hardware furnished with the pickup truck is deleted, modified, or rendered inoperable. A listing of such hardware is provided under Emission Control Modifications in the Safety/Emission section of this book.
2. Any vehicle emission frontal area limitations are not exceeded, as noted on the underhood Vehicle Emissions Compliance Information (VECI) label. Some heavy-duty incomplete vehicles are certified using chassis certification protocol and will require vehicle weight and frontal area restrictions (to retain emission certification). If your vehicle is affected, the frontal area and unloaded vehicle weight information will be found on the VECI label, which is located in the engine compartment. Incomplete vehicles with engines certified using heavy-duty engine protocol are not limited by weight and frontal area restrictions for exhaust emissions. It is important that the final stage manufacturer observe vehicle restrictions from vehicle safety requirements, etc., which are located elsewhere in this manual. Additional emissions certification information is contained in the *Ford Truck Body Builders Layout Book* for the model year and type of this incomplete vehicle.

NOTES —

(1) For vehicles with a GVWR of 10,000 lb or less and an unloaded vehicle weight of 5500 lb or less.

(2) Applicable to vehicles with a GVWR of 10,000 lb or less.

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PICKUP BOX REMOVAL / ALTERATIONS DESIGN RECOMMENDATIONS (Cont'd)

PART III (Cont'd)

The following Frontal Area and Weight Restrictions apply to the completed vehicle:

- **6.2L Engine with Pickup Box Delete option**
  [NOTE: Export vehicles use U.S. Emissions]
  - Max GVWR less than or equal to 4536 kg [10,000 lb]:
    - Max curb weight – 4309 kg [9500 lb]
    - Max frontal area – 5.57 m^2 [60 ft^2]
  - Max GVWR greater than 4536 kg [10,000 lb]:
    - Max curb weight – 5216 kg [11,500 lb]
    - Max frontal area – 5.11 m^2 [55 ft^2]

- **6.7L Engine with Pickup Box Delete option** [NOTE: Euro II /Euro III emissions not affected by restrictions]
  - Max GVWR less than or equal to 4536 kg [10,000 lb]:
    - Max curb weight – 4309 kg [9500 lb]
    - Max frontal area – 3.76 m^2 [41.0 ft^2]
  - Max GVWR greater than 4536 kg [10,000 lb]:
    - Max curb weight – 4763 kg [10,500 lb]
    - Max frontal area – 4.74 m^2 [51.0 ft^2]

NOTE: Frontal area requirement includes the cab and second unit body. The completed vehicle must meet Maximum UVW weight for a GVWR of 4536 kg [10,000 lb] or less.

3. The Super Duty F-Series fuel filler kit that is supplied with the vehicles ordered with pickup box delete option number 66D or available through Ford dealers. Installation must be as shown in the Super Duty F-Series section.
4. The alterer does not exceed the limitations listed in Safety / Emissions pages under “Curb Weight and Frontal Area Restrictions”.

NOTE: If the weight of the altered vehicle exceeds the maximum unloaded vehicle weight specified in Table A, corresponding to the particular pickup truck model and engine combination, the vehicle alterer is required to certify the vehicle to: F/CMVSS 105(3), Brakes; F/CMVSS No. 204(1), Steering Control Rearward Displacement; F/CMVSS No.212(2), Windshield Mounting; F/CMVSS No. 214(2), Side Impact Protection; and F/CMVSS 219(2), Windshield Zone Intrusion; and F/CMVSS No. 301(2), Fuel System Integrity, in addition to compliance with any other F/CMVSS affected by the vehicle’s alteration.

5. For a chassis certified pickup truck having a GVWR of up to 14,000 lb, other than those for sale, registration or use in California, the alterer does not add more than 500 lb to the maximum unloaded vehicle weight specified in Table A corresponding to the particular pickup model.

   (a) IMPORTANT: Some of the preceding conditions are based, in part, on statements made by C. N. Freed of the Environmental Protection Agency (EPA) in a letter of July 13, 1979 to M. H. McBride, legal counsel of the Recreation Vehicle Industry Association. That letter explained EPA’s policy concerning alterers of complete 1980 and later model year light-duty trucks in the context of EPA’s Advisory Circular No. 64 – a March 7, 1977 publication that provides guidance on the need for separate certification of vehicles modified after original manufacture, but prior to sale and delivery to the ultimate purchaser. The maximum second unit body weights provided in Table A are calculated in accordance with the definition of “maximum vehicle weight” provided in the July 13, 1979 letter. The letter provides that alterers of complete light-duty trucks need not re-certify such vehicles for emission control purposes if:

   1) the altered vehicles conform, in all material respects, to the design specifications in the original manufacturer’s application for certification, and
   2) the weight of the altered vehicle, including the weight of fuel at nominal tank capacity, is no more than 500 lb above the “maximum vehicle weight.”

   The letter further states that no frontal area restrictions will apply to alterers who comply with conditions (a) and (b) above. Alterers who do not comply with these conditions will be considered manufacturers under the Clean Air Act and will be required to assure that the altered vehicles are certified.

   Questions concerning EPA’s policies, with respect to alterers of completed vehicles, should be directed to legal counsel or the Environmental Protection Agency.

   (b) NOTE: (For a pickup truck having a GVWR of 10,000 lbs or less)
   If the weight of the altered vehicle exceeds the maximum unloaded vehicle weight specified in Table A, corresponding to the particular pickup truck model and non-California engine-transmission combination, the vehicle alterer is required to certify the vehicle to: F/CMVSS No. 105, Brakes; F/CMVSS No. 204, Steering Control Rearward Displacement (if the unloaded vehicle weight is 5500 lb or less); F/CMVSS No. 208, Occupant Crash Protection (if the GVWR is 8500 lb or less and the unloaded vehicle weight is 5500 lb or less); F/CMVSS No.212, Windshield Mounting; F/CMVSS No.214(2), Side Impact Protection; F/CMVSS No.219, Windshield Zone Intrusion; and F/CMVSS No. 301, Fuel System Integrity, in addition to compliance with any other F/CMVSS affected by the vehicle’s alteration. See next page for important information concerning alteration of light-duty trucks and chassis certified medium duty vehicles rated at 14,000 lb GVWR or less, for sale, registration, or use in California.

B. High Altitude Emission Requirements

United States Environmental Protection Agency regulations do not contain unique emission certification requirements for trucks that will be sold or delivered to customers for principal use above 1219 meters [4,000 feet].

C. California Fuel Vapor Recovery

California regulations require that vehicle fuel systems be designed to accommodate a new vapor-recovery fueling nozzle, including unobstructed access to the fill pipe. Fuel filler pipes, installed per Super Duty F-Series section of this book will comply with the “Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks,” referenced in Title 13 California Administrative Code, providing no part of the second unit body, as installed, intrudes within the access zone defined in CARB regulation 13 CCR § 2235. Fuel filler pipes, installed using the alternate bracket shown on the figures in Super Duty F-Series section of this book will comply with the above California vapor recovery regulations, provided the second unit body installed does not interfere with the access zone.

D. Radio Frequency Interference (RFI)

1. UNITED STATES RADIO FREQUENCY INTERFERENCE (RFI) INFORMATION

   Devices that emit radio frequency (RF) energy, such as AM/FM radios and radio-controlled theft alarms, marketed for sale or use in the United States, are subject to the rules and regulations of the Federal Communications Commission (FCC) 47 C.F.R. Parts 2 and 15. These rules specify the following conditions of operation:

   This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

   (1) This device may not cause interference, and

   (2) The device must accept any interference received, including interference that may cause undesired operation.

   In addition, the FCC’s rules may require the device to be tested and found to comply with various RF interference emissions limits before it may be marketed. The FCC established different limits, according to the particular use and installation of RF devices. In some cases, a grant of equipment authorization from the FCC also must be obtained before and RD device may be marketed. To ensure continued compliance with the FCC’s requirements, the owner, user, custom manufacturer, or service technician must not modify or change the RF device in a manner not expressly approved by Ford Motor Company. Such modifications could void the authority to operate the device.

NOTES —

(1) For vehicles with a GVWR of 10,000 lb or less and an unloaded vehicle weight of 5500 lb or less.

(2) Applicable to vehicles with a GVWR of 10,000 lb or less.

(3) F/CMVSS 105 is applicable to vehicles with GVWR over 3500 Kg [7716 lb].

(Cont'd next page)

PART III (Cont'd)

2. CANADIAN RADIO FREQUENCY INTERFERENCE (RFI) INFORMATION

   All vehicles powered by spark ignition engines (e.g., gasoline, natural gas, or propane engines) and manufactured in Canada or for sale or use in Canada, are subject to the Canadian "Regulations for the Control of Interference to Radio Reception" per Interference-Causing Equipment Standard (ICES-002) and applicable test method according to "CAN/CSA-C108.4-06, Limits and Methods of Measurement". Violation of these regulations is punishable by fine or imprisonment. Ford-built vehicles were designed and manufactured to be capable of meeting the regulatory requirements or such modifications, thereof, as may have been authorized by the Department of Communications. However, because Ford Motor Company has no control over how an altered vehicle is completed by subsequent stage manufacturers, Ford Motor Company does not represent that the completed vehicle, incorporating the Ford-built components, will comply with applicable requirements.

The following information is supplied to subsequent stage manufacturers to help them avoid increasing the RFI emissions of this vehicle in the course of completing it. For any altered vehicle, additional measures may be needed to adequately suppress RFI emissions. Affected components could include spark plugs, electronic engine control module, ground straps, ignition component shields, accessory drive belts, and instrument voltage regulator suppressor assembly. More specifically:

- All components required to suppress RFI emissions, which are removed during service, repair, or completion of the vehicle, must be reinstalled in the manner in which they were installed by Ford.
- Shields on ignition coil must remain installed.
- Replacement spark plugs, ignition wires, and ignition coil must be equivalent in their RFI suppression properties to original equipment.
- Electrical grounds on all components must be retained.
- Metallic components installed on the body or chassis must be grounded to the chassis.
- Electrical circuits added to the vehicle must not be installed near the high voltage ignition components.
- Only "static conductive" accessory drive belts should be used. Fan, water pump, power steering, and other belts should be of the OEM type or equivalent that will not build up a static electrical charge.
- Engine component wiring must not be rerouted in any manner.
- The Powertrain Control Module (PCM) must not be relocated from the position as installed by Ford Motor Company.

E. Noise

Canadian Motor Vehicle Safety Standard (CMVSS) Section 1106 Noise Emissions prescribes maximum permissible exterior sound levels depending on the vehicle type and GVWR when tested in accordance with certain test methods or recommended practices. CMVSS 1106 also prescribes a maximum interior sound level for trucks and buses with a GVWR greater than 4,536 kg (10,000 lbs).

WARNING — VEHICLE OPERATING TEMPERATURES

Some trucks of Ford Motor Company may exhibit high engine compartment and exhaust system temperatures in some operating modes. Components, including exhaust heat shielding systems, have been installed on some vehicles in our assembly plants in an effort to provide protection against such temperatures. Subsequent aftermarket installers/manufacturers are responsible for providing thermal protection (e.g., underbody heat shields) for any structure/equipment added to the vehicle, and should not remove any components/exhaust heat shielding installed on the vehicles by Ford. Also, the added structure/equipment should not restrict air circulation in the engine compartment or underbody. See applicable sections under "Ambulance Builders Guidelines" in the Design Recommendations section.

Any interior floor underlayment or insulation in the near vicinity of the exhaust system, without benefit of the Ford-provided heat shields, must be capable of withstanding 371° C [700° F] and 482° C [900° F] in close proximity to the catalyst during normal operating conditions. Additionally, any under chassis-mounted component, within 4 inches of the exhaust system, must be compatible with these temperatures.

IMPORTANT INFORMATION CONCERNING ALTERATION OF LIGHT-DUTY TRUCKS AND CHASSIS CERTIFIED MEDIUM DUTY VEHICLES WITH A GVWR OF UP TO 14,000 LB FOR SALE, REGISTRATION, OR USE IN CALIFORNIA

Pickup trucks listed in Table A and manufactured by Ford Motor Company for sale, registration, or use in California, can be altered by removal of the pickup box (including items attached to the pickup box) and rear bumper (if so equipped) and installation of a second unit body, if all of the following conditions are satisfied.

- Conditions noted on previous pages under Section A entitled "Exhaust and Evaporative Emission Requirements" numbered 1, 2, 3, and 4 and those under Section C, entitled "California Fuel Vapor Recovery", as they apply to light duty trucks and medium duty vehicles.
- The vehicle alterer does not increase the vehicle's unloaded vehicle weight by more than 10% over the maximum curb weight (unloaded vehicle weight specified in Table A corresponding to the particular pickup model), does not increase the frontal area by more than 10%, or does not provide a combination increase of weight plus frontal area of more than 14%.
- No axle ratio, tire size or tire type changes are made that would increase the drivetrain ratio by more than 5%. For additional information concerning noise control laws and regulations issued by the Federal (U.S.) Government, as well as some states and municipalities, see Vehicle Noise Regulations in the Safety/Emissions section.

NOTE: The maximum unloaded vehicle weight, specified in Table A for California, is the curb weight – the basic curb weight plus the weight of options of a greater than 33% installation rate.

NOTE: If the weight (in pounds) of the altered vehicle exceeds the maximum unloaded vehicle weight specified in Table A, corresponding to the particular pickup truck model, the vehicle alterer is required to certify the vehicle to the following Standards, in addition to any other F/CMVSS to which conformity is affected by the vehicle's alteration:

- F/CMVSS No. 105 – Hydraulic and Electric Brake Systems
- F/CMVSS No. 126 – Electronic Stability Control
- F/CMVSS No. 204 – Steering Control Rearward Displacement (if the unloaded vehicle weight is 5500 lb or less)
- F/CMVSS No. 208 – Occupant Crash Protection (if the unloaded vehicle weight is 5500 lb or less)
- F/CMVSS No. 212 – Windshield Mounting
- F/CMVSS No. 219 – Windshield Zone Intrusion
- F/CMVSS No. 301 – Fuel System Integrity

Altered vehicles which do not satisfy these conditions may not be sold, offered, or delivered for sale, or registered in California, unless the altered vehicle is certified by the California Air Resources Board, pursuant to all applicable emissions requirements. The vehicle alterer is responsible for obtaining such certification. Questions regarding these requirements should be directed to your legal counsel or the California Air Resources Board.

PICKUP BOX REMOVAL / ALTERATIONS
MODELS & WHEEL / TIRE DATA

TABLE A – SUPER DUTY F-SERIES MODELS AVAILABLE FOR PICKUP BOX REMOVAL

Body Style	Model	Drive	WB [in]	GVWR [lb]		Second Unit Body Limits		Maximum Complete Vehicle UVW [lb] c/	
						Weight	Max. Height a/		
				6.2L	6.7L	Min [lb]	Cg b/ [in]	6.2L Gasoline	6.7L Diesel
Regular Cab	F-250	4x2	141.6	9900	9900	445	17.6	7819	7749
	F-250	4x4	141.6	9900	9900	445	17.6	7819	7749
	F-250 / F-350	4x2	141.6	9950 / 10,000	10,000	445	17.6	7819	7749
	F-250 / F-350	4x4	141.6	10,000	10,000	445	17.6	7819	7749
	F-350 d/	4x2	141.6	10,500	11,000	445	17.6	—	—
	F-350 d/	4x4	141.6	11,300	11,500	445	17.6	—	—
	F-350 DRW	4x2	141.6	13,500	13,000	486	24.0	—	—
	F-350 DRW	4x4	141.6	13,800	13,000	486	24.0	—	—
SuperCab	F-250	4x2	148.0	9900	9900	445	24.0	7819	8608
	F-250	4x4	148.0	9900	9900	445	24.0	7819	8608
	F-250	4x2	164.2	9900	9900	445	24.0	7819	8608
	F-250	4x4	164.2	9900	9900	445	24.0	7819	8608
	F-250 / F-350	4x2	148.0	10,000	10,000	445	24.0	7819	8608
	F-250 / F-350	4x4	148.0	10,000	10,000	445	24.0	7819	8608
	F-250 / F-350	4x2	164.2	10,000	10,000	445	24.0	7819	8608
	F-250 / F-350	4x4	164.2	10,000	10,000	445	24.0	7819	8608
	F-350 d/	4x2	148.0	10,500	11,000	445	24.0	—	—
	F-350 d/	4x4	148.0	11,100	11,500	445	24.0	—	—
	F-350 d/	4x2	164.2	10,900	11,500	445	24.0	—	—
	F-350 d/	4x4	164.2	11,000	11,500	445	24.0	—	—
	F-350 DRW	4x2	164.2	13,900	13,000	486	24.0	—	—
	F-350 DRW	4x4	164.2	14,000	13,000	486	24.0	—	—
Crew Cab	F-250	4x2	159.8	9900	9900	445	24.0	7819	8608
	F-250	4x4	159.8	9900	9900	445	24.0	7819	8608
	F-250	4x2	176.0	9900	9900	445	24.0	7819	8608
	F-250	4x4	176.0	9900	9900	445	24.0	7819	8608
	F-250 / F-350	4x2	159.8	10,000	10,000	445	24.0	7819	8608
	F-250 / F-350	4x4	159.8	10,000	10,000	445	24.0	7819	8608
	F-250 / F-350	4x2	176.0	10,000	10,000	445	24.0	7819	8608
	F-250 / F-350	4x4	176.0	10,000	10,000	445	24.0	7819	8608
	F-350 d/	4x2	159.8	10,700	11,400	445	24.0	—	—
	F-350 d/	4x4	159.8	11,300	11,500	445	24.0	—	—
	F-350 d/	4x2	176.0	11,000	11,500	445	24.0	—	—
	F-350 d/	4x4	176.0	11,200	11,500	445	24.0	—	—
	F-350 DRW	4x2	176.0	14,000	13,000	486	24.0	—	—
	F-350 DRW	4x4	176.0	14,000	13,000	486	24.0	—	—

a/ Vertical height measured from the top surface of the frame at the rear of the cab.
b/ Maximum SUB center of gravity (CG) shown in this table is only allowable if F/CMVSS 105 criteria are satisfied per calculation in the Safety/Emission section of this book.
c/ Weight shown is maximum allowable for safety certification for vehicles with a GVWR less than or equal to 10,000 lbs.
d/ Maximum available GVWR with 18” wheels and tires.

TABLE B – SUPER DUTY F-SERIES TIRE AND WHEEL WEIGHTS

Wheel Size	Wheel (only) Weight [lb]
17x7.5 (Steel Wheel – F250/350 – SRW)	37.8
17x7.5 (Aluminum Wheel – F250/350 – SRW)	27.2
17x6.5 (Steel Wheel – F350 – DRW)	39.2
17x6.5 (Aluminum Wheel – F350 – DRW)	24.8
18x8.0 (Steel Wheel – F250/350 – SRW)	43.4
18x8.0 (5-spoke Aluminum Wheel – F250/350 – SRW)	32.3
18x8.0 (6-spoke Aluminum Wheel – F250/350 – SRW)	32.5
19.5 x 6.0 (Steel Wheel – F450/550 – DRW)	51.1
19.5 x 6.0 (Aluminum Wheel – F450/550 – DRW)	34.6
19.5 x 6.0 RW (Steel Wheel – DRW) #	52.0
19.5 x 6.75 K (Steel Wheel – DRW) #	42.5
20x8.0 (7-spoke Aluminum Wheel – Lariat – SRW)	36.0
20x8.0 (8-spoke Aluminum Wheel – Lariat – SRW)	36.0
Tire Size	**Tire Weight [lb] ***
LT245/75R17	45.9
LT265/70R17	50.8
LT275/65R18	51.4
LT275/70R18	60.3
225/70R19.5	62.0
LT275/65R20	60.5

* Typical tire weight
# F53 / F59 Basic Stripped Chassis